

1997 Scholarship Scramble Results

Hidden Creek Country Club • July 14, 1997

New Prague GC	32-30-62
Oak Ridge CC	31-33-64
Purple Hawk CC	33-31-64
Elm Creek Golf Links of Plymouth	34-31-65
River Falls GC	34-32-66
Hazeltine National GC	33-34-67
Brackett's Crossing	33-34-67
North Star Turf-1	32-35-67
Pebble Creek GC	34-33-67
Stillwater CC	34-34-68
Hidden Creek GC	33-35-68
Riverview GC	36-32-68
Birch Bay GC	35-33-68
Willinger's GC	37-32-69
Manitou Ridge GC	34-35-69
Owatonna CC	34-35-69
Hillcrest CC	36-33-69
Fox Hollow GC	35-34-69
The Minikahda Club	35-34-69
North Star Turf-2	37-32-69
MTI Distributing Co.	33-36-69
Worthington CC	37-33-70
Midland Hills CC-1	34-36-70
Midland Hills CC-2	36-34-70
Indian Hills CC	36-34-70
Club Car/Minnesota Golf Cars	36-34-70
St. Croix National GC	36-35-71
Cannon GC	34-37-71
Lakeview Golf	35-36-71
Tartan Park GC	37-34-71
Mesaba CC	34-37-71
Midland Hills CC-3	35-37-72



Host Superintendent Marty Terveer

Northland CC	36-36-72
Cedar River GC	37-36-73
Eau Claire CC	37-36-73
Thompson Oaks GC	35-38-73
Chisago Lakes	37-36-73
Waseca Lakeside GC	38-35-73
MTI Distributing Co.	40-35-75
New Richmond GC	39-36-75
The Wilds GC	39-36-75
Owatonna CC	36-39-75
North Branch	37-39-76
Woodhill CC	40-37-77
Wilbur-Ellis	37-40-77
Prairie Ridge GC	39-40-79
Rochester G&CC	40-40-80
Mankato GC	39-42-81
The Lafayette Club	46-42-88

QUALITY SUPPLIER OF TURF

- **Washed** and Regular Turf (Sod) in 1½ yd. or up to 55 yd. Big Roll Size (42" Wide)

TURF TYPES:

- ELITE KENTUCKY BLUEGRASS BLEND
- SPORTS TURF
BLUEGRASS/P. RYEGRASS BLEND
BENTGRASS



MEMBER

NCTGA	MGCSA
MSTMA	WTA
SDGSA	ISTMA
MTGF	TPI

For Quality Turf Contact:
(612) 674-7937 • FAX: (612) 674-7044

8651 Naples St. N.E.
Blaine, MN 55449

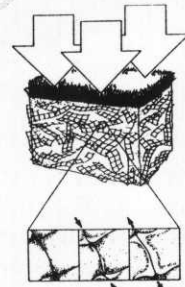
QUALITY CONSTRUCTION & RECONSTRUCTION

- *Golf Courses*
- *Sports Fields*



NETLON® ADVANCED TURF SYSTEMS

Self-Cultivating means healthier turf and better drainage.



NETLON® MESH ELEMENTS AND MIXES

For Compaction Resistance on cart paths, sports fields and other high use areas.

For Quality Construction & Netlon® Products Contact:
(612) 784-0657 • FAX: (612) 784-6001

Q. Why FLOWTRONEX PSI?

A.

REASON #1.

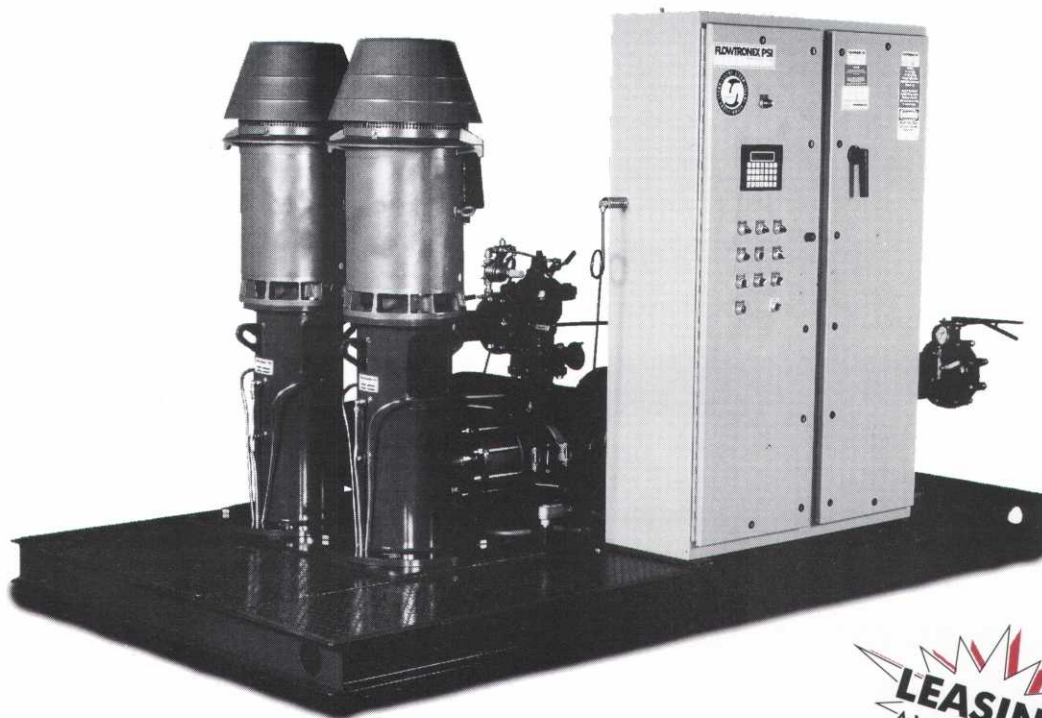
SUPERIOR PRODUCTION. The Silent Storm Variable Frequency Drive pump station combines efficiency and simplicity to save you up to 50% on your power bills and countless hours in maintenance to your pump station and entire irrigation system.

REASON #2.

INDUSTRY LEADERSHIP. FLOWTRONEX PSI is the world's largest pump station manufacturer, with more installations than all of our competitors combined.

REASON #3.

WORLDWIDE SERVICE. Using the revolutionary FlowNet service network, FLOWTRONEX PSI is able to provide 24-hour support and fast on-site service when you need it.



**LEASING
AVAILABLE**

Whatever your needs:

- Variable Frequency Drive or Conventional
- Vertical Turbine or Horizontal Centrifugal
- Prefabricated or Retrofit

MTI DISTRIBUTING CO.

FLOWTRONEX PSI
Pumping Systems

**Contact: Dean Chaltas at
612-475-2200 Ext. 224**

**MTI Distributing Co.
14900 21st Ave. N.
Plymouth, MN 55447**

Farmers, Consumers Ask, 'Does The Risk Cup Runneth Over?'

By SCOTT RAWLINS and DENNIS STOLTE

(Editor's Note: Rawlins is the American Farmers Bureau Federation's Policy Specialist—Horticulture, Fruits & Vegetables, & Farm Labor; Stolte is the AFBF Senior Director, Environment/Food Safety. Both are in the AFBF Washington, DC office.

The following article is reprinted with permission from The Farmer's Voice, the official publication of the Minnesota Farmers Bureau Federation.)

* * * *

When environmentalists talk about pesticide exposure, they are usually referring to possible residue in our food. In fact, food is only one of many potential sources of pesticide residue in our environment. Both farmers and consumers, especially parents with small children, will benefit from the "risk cup" assessment of pesticide levels in our daily lives from ALL sources — not just agriculture.

* * * *

The Food Quality Protection Act (FQPA) established an entirely new set of guidelines for registering and reregistering pesticides. One of the new provisions of the FQPA requires EPA to consider pesticide exposures from food and non-food sources under the aggregate exposure provision in the law.

Before the FQPA, EPA assessed the total risk of a pesticide by adding the risk from all the foods it was registered for use on. EPA did not typically look at other exposures, such as drinking water, residential sources and other exposures in assessing the total risk. Now the FQPA requires EPA to conduct a comprehensive risk assessment for every pesticide active ingredient and evaluate all potential exposures.

Aggregate Exposure

In 1993 EPA changed its risk assessment policy when the National Academy of Sciences (NAS) released the report "Pesticides in the Diets of Infants and Children." The report recommended that the total exposure to pesticides from all exposures should be combined, including water and residential sources. Since the release of the report, EPA has conducted aggregate exposure risk assessments for some pesticides using the NAS recommendations.

The FQPA requires EPA to examine all exposures for every pesticide. The new law under section 408(a)(4) of the Federal Food, Drug and Cosmetic Act (FFDCA) states that for every tolerance there must be a decision "that there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures for which there is reliable information." The law also states that "...no harm will result to infants and children from aggregate exposure to the pesticide chemical residues..." So while EPA had already begun this process voluntarily before FQPA under its existing authority, the FQPA accelerates the process while including statutory protections for infants and children.

Before the FQPA, the focus was on food. After the FQPA, the focus is still on food, but additional exposures must now be considered. These include drinking water, chemicals that pesticides degrade into, children's outdoor residential exposures, and indoor exposures such as to termite or cockroach pesticides.

The Risk Cup

When adding all pesticide risks, EPA is using the analogy of a cup to demonstrate how it intends to evaluate acceptable risk under the FQPA. Here's how the risk cup concept works: For each pesticide active ingredient, EPA will determine the total level of acceptable risk. This is the level of exposure to a specific pesticide that a person could receive every day over a 70-year lifetime without significant risk of a long-term or chronic non-cancer health effect. This includes exposures from dietary and non-dietary sources. This total, or maximum, level of acceptable risk represents a full risk cup. This equals a pesticide's Reference Dose (RfD). Before the FQPA, the law only required food exposures to be in the risk cup.

"There is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue."

Reference Dose

The RfD is calculated in the following manner: EPA requires pesticide registrants to determine through laboratory studies an exposure level below which no adverse health effects occur. For each active ingredient, studies establish a "no observed effects level" or NOEL. The NOEL is

(Continued on Page 15)

Crown III™ Crumb Rubber Topdressing

Is Advanced Technology for an Age-Old Problem

For years turf managers have sought a solution and an effective product to use on high-wear areas.

Crown III Benefits:

- Reduces turfgrass wear
- Lessens resodding cost
- Insulates against winterkill
- Lengthens growing season
- Conserves water
- Reduces soil compaction

Professional Turf Managers Love This Product!

"In 1996 we didn't have to resod or use any ropes where we had used Crown III. I'll be buying more this year."

— Dale Caldwell, CGCS
Minneapolis Golf Club

"The soccer coaches have commented on how well the grass in the goal areas is holding up."

— Bill Randles
Vanderbilt University — Tennessee

"I think Crown III is a tool which should be in every turfgrass manager's tool kit."

— Don Follett
Sun Devil Stadium — Arizona

Advanced Technology

Crown III crumb rubber top dressing was developed and patented by Dr. Trey Rogers and Tim Vanini at Michigan State University. It is non-abrasive, minimizes injury to sensitive crown tissue, and reduces scarring of the grass blade. The rubber absorbs and dissipates the impact from traffic, reducing any underlying soil compaction. As a topdressing, crumb rubber insulates and creates an evaporation barrier. It is ideal for wear spots on golf courses, athletic fields, parks and other high traffic areas.

Leitner Company

- Specializing in Soils For Turf Maintenance and Construction
 - Distributor of Sand and Aggregate Products
 - Distributor of Crown III Crumb Rubber Topdressing
- Representative for *International Sports Turf Research Center, Inc.* Olathe, Kansas

Developer of the ISTRC System for Soil Testing and Analysis

Mike Leitner

945 Randolph Avenue, St. Paul, Minnesota 55102 • (612) 291-2655

PROUD SUPPORTER OF RESEARCH AND EDUCATION THROUGH THE MGCSA

Risk Cup—

(Continued from Page 13)

the highest dose that causes no effects. The reference dose is calculated from the NOEL using a 100-fold safety factor. In other words, the reference dose is 100 times lower than the dose that has no health effects on laboratory animals. For example if the NOEL is 10,000 parts per million. In this example, the risk cup is full when pesticide exposures reach 100 parts per million. This means that all pesticide residue tolerances, when added together, cannot exceed 100 parts per million. If a particular active ingredient was registered for use on 20 different crops, and the maximum residue level or tolerance for each was 5 parts per million, the risk cup would be filled by these 20 crops, and no new uses could be approved.

To determine when the risk cup is full, EPA will divide exposure into chronic and acute exposures, while factoring in other risk sources.

Chronic Exposure

A chronic exposure is daily, lifetime exposure to low levels of pesticides. While food and water are primary sources for chronic exposure, other sources may also be included. For example, janitors who use disinfectant products every working day may have chronic exposures. EPA is using the following formula to calculate chronic exposure: Chronic Dietary Exposure = Chronic Food Exposure + Chronic Drinking Water Exposure.

Acute Exposure

EPA will assess acute exposures separately. An acute exposure is defined as a single or one-day exposure and is the level of exposure to a specific pesticide that a person could receive in one day with no increase in risk. An acute exposure is a single exposure to a high-end dose of the same pesticide.

While EPA is required to consider exposures from multiple sources, it has admitted that it is highly improbable that people will treat their lawn and garden, spray for termites, swim in a pool, eat food and drink water

and be exposed to the same pesticide at maximum levels for all of those exposures in a single day. Plus, EPA believes that since residues decline over time, it is not appropriate to include residential pesticide exposures in acute exposure calculations at all. As a result, EPA will evaluate acute exposure as dietary exposures only.

Sources of Risk

EPA will perform risk assessments for pesticides assuming that people will be exposed to pesticides from the following four sources: 1) dietary 2) occupational 3) residential 4) drinking water.

Dietary Sources

To assess dietary risks, EPA will use the Dietary Risk Evaluation System (DRES) to combine available pesticide residue data with food consumption data. If EPA does not have residue data, they assume that residues are present on food at maximum levels. To evaluate what people are eating, EPA uses food consumption data from USDA's 1977-78 Nationwide Food Consumption Survey (NFCS). The FQPA requires USDA to update the NFCS to reflect current consumption patterns, which is critical because the 1977-78 NFCS is not a good indicator of current eating habits.

To assess dietary risks, EPA assumes that residues are present on all food at the tolerance and that 100% of the entire crop has been treated. However, when data is available, EPA will refine its evaluation if percent crop-treated and actual residue information is available. All available information is combined and Monte Carlo techniques are used to evaluate risk. Monte Carlo techniques are a statistical methodology for reviewing exposures.

Occupational Exposures

Occupational exposure is worker exposure and includes pesticide mixers, loaders and applicators. EPA uses exposure data from the Pesticide Handler's Exposure Database, which contains dermal and inhalation exposure values. EPA estimates occu-

pational exposures using a variety of factors including the formulation, method of application, label rate of application, percent active ingredient and number of acres treated. Specific information allows EPA to lower occupational risk. For example, liquid formulations are less risky than wettable powders (wetable powders have a higher inhalation risk) and closed-system applications are less risk than air blast sprayers. Without data, EPA assumes that 100% of the crop is treated at the maximum label rate. Actual data allows EPA to lower its risk assessments.

Residential Exposures

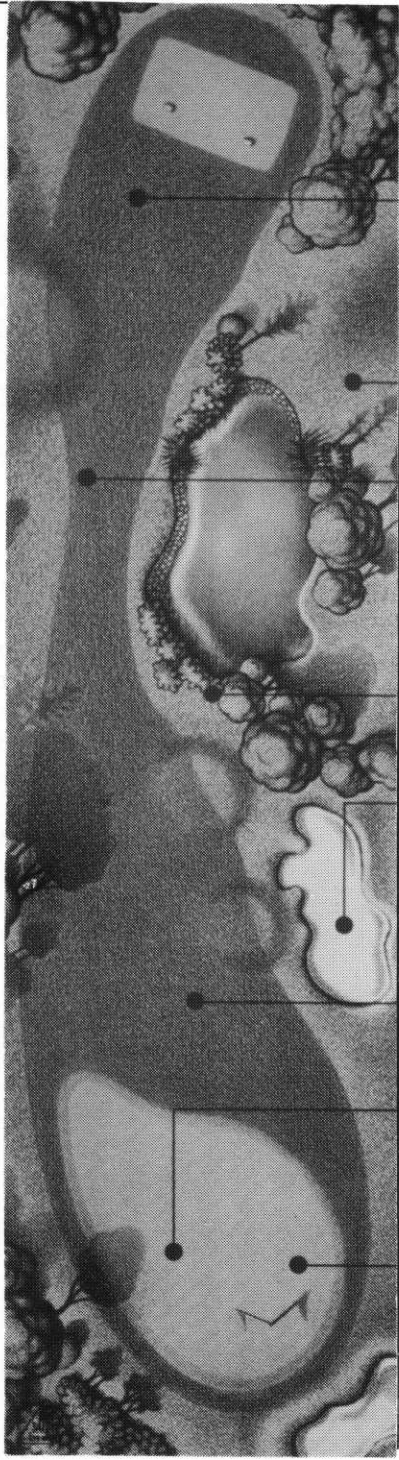
Residential exposures occur when playing on a lawn, working in a garden, swimming in a treated pool, playing with a pet wearing a treated collar or touching surfaces that have been treated. EPA has limited data on residential exposures. Because of this, EPA issued a data call-in for new residential exposures in March 1995. As a result, the Outdoor Residential Exposure Task Force was organized to develop data in response to the data call-in. This data is expected to trickle into EPA early next year and to be finalized by the year 2000. Eventually, EPA will use this new information to develop a database similar to the Pesticide Handler's Exposure Database.

Drinking Water Exposures

A drinking-water assessment is required for all future human health assessments. It must include, at a minimum, why an assessment is not required. Every person drinks water every day. Because of this EPA will require a calculation of acute and chronic drinking-water exposure of both ground and surface water, but it needs more to evaluate all pesticides and metabolites. EPA will not estimate a national drinking water exposure. Pesticide detections from a specific region will not be averaged in with non-detects from other areas of the country to develop a national

(Continued on Page 17)

TEE-TO-GREEN QUALITY FROM JOHN DEERE



2653

Hydraulic reel drive, exceptional climbing ability, and 26-inch cutting units let you mow where others can't.



GATOR VEHICLES*

Your best choice for utility hauling with 4- and 6-wheel low-ground-pressure models available.

3215/3235

Both deliver ground-hugging fairway performance with five John Deere-manufactured 22-inch cutting units.

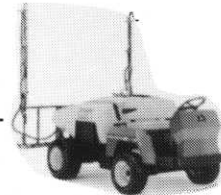


3365

Five 30-inch cutting units combine to deliver a quality cut over wide areas—from fairways to roughs.

1200A

New design features more power, more comfort, more attachments, and less noise.

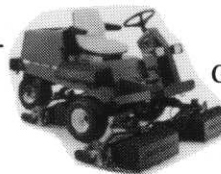


1800

True utility performance with your choice of sprayer, spreader, and cargo box configurations.

220

This new walk-behind features an operator-presence safety system, new engine, and 11-bladed reel.



2243

Gas and diesel models both feature 18-hp engines and John Deere cutting units, for exceptional quality of cut.

NOTHING RUNS LIKE A DEERE®



Polfus Golf & Turf

12040 Point Douglas Drive S.
Hastings, MN 55033

Call for a Demonstration

Phone: (612) 437-7747 or Fax: (612) 437-3483

Risk Cup—

(Continued from page 15)

average. EPA believes this underestimates potential exposures.

EPA Decision Making

The FQPA became effective immediately when it was passed. There was no transition or phase-in period. This means that EPA lacked information it needed to make decisions demanded by the FQPA. Without data, EPA has developed default assumptions and will reserve a specific portion of the risk cup for the following exposures:

- 10% for drinking water exposure;
- 5% for indoor residential exposure;
- 5% for outdoor residential exposure.

This means that, for now, between 5% and 20% of the risk cup will be reserved for non-food uses. When EPA receives information, they will replace default assumptions with actual data.

What Aggregate Exposure Provision Means for Farmers

Based on the above information, how will the aggregate exposure provision affect farmers? First, EPA has been evaluating aggregate exposures for pesticides EPA deemed troublesome since 1993. The special review of the triazines is an example of the type of pesticides EPA thought fit into this category. Based on what has occurred so far in the triazine special review, farmers can expect little regulatory action. This is because the triazine special review has uncovered new data that dramatically lowers past risk estimates.

If the triazine special review is indicative of what farmers can expect from FQPA-mandated reviews of other pesticides, the impact will be minimal. As stated before, replacing theoretical maximum assumptions with actual data almost always lowers risk. If registrants are unwilling to develop data or cannot afford to, expect tolerance cancellations.

Second, persistent pesticides will be affected most by the aggregate exposure provision of the FQPA. This

means that for pesticides where residues show up in a lot of crops and in other applications that are also organophosphates, carbamates or B2 carcinogens.

“For pesticides where residues show up in a lot of places long after the pesticide was applied, expect some regulatory action.”

It is difficult to categorize which pesticides fall into this category. Persistent pesticides that are also either organophosphate or carbamate pesticides will likely feel some impact. For a list of organophosphate and carbamate pesticides, please contact AFBF for our earlier FQPA analysis on common mechanism of toxicity.

Other pesticides that may feel some impact are those with many applications and uses. One example of this type of pesticide is Lorsban. Lorsban is an insecticide used on a wide variety of crops with many home and garden applications. These uses include agricultural applications on apples and corn to Black Flag Ant Control System to Ortho Home Pest Insect Control to Lassie Take Charge Flea & Tick Dog Collar.

In total, it has more than 400-separate uses. It is moderately toxic, but not persistent. It is also an organophosphate pesticide, which brings other regulatory decisions into play. This requirement assumes that people (especially children) may eat food that may contain residues of Lorsban, roll in the grass that may have been treated with Lorsban and hug a dog that is wearing a Lorsban — impregnated dog collar. All of these exposures must be considered together.

Based on this, Lorsban would appear to face some crop and use cancellations. Detailed information on use patterns and residues permits a different conclusion. Pesticide use information reveals that Lorsban is never used on 100% of acres at maximum label rates. Plus, when residues

are found on food treated with Lorsban, they are always at levels far below the tolerance in a very small percentage of samples tested. While Lorsban is a pesticide that potentially raises many FQPA issues, detailed information satisfies many of those concerns.

Conclusions

The aggregate exposure provision of the FQPA highlights the fact that the new law is an information-intensive statute. Without data, farmers should be concerned. Growers who actively gather pesticide-use information will likely be rewarded for their efforts. Actual use information and residue data will make more room in the risk cup for other crops and uses to come in.

With data, farmers should be able to satisfy concerns. Farm Bureau's job is to help provide data to satisfy safety concerns while providing consumers in the U.S. and abroad with safe, affordable food.



Specializing in
**Re-Design & Construction
of Golf Courses**

MAIN OFFICE

2 South 2nd Avenue — Suite 120
Sauk Rapids, MN 56379

PHONE: (320) 203-8451

TOLL FREE: 1-888-251-4896

FAX: (320) 253-4160

ELK RIVER OFFICE

817 Gates Ave., Elk River, MN 55330

(612) 441-5127

Cushman® White Truck



Model 898611

■ STANDARD FEATURES

4-wheel; white; 2-passenger; front bumper; grille; halogen headlights; stoplights/taillights; dome light; self-canceling turn signals; 2-speed intermittent wiper; heater/defroster; rearview mirror; left-hand outside mirror; center console; AM/FM cassette radio; digital clock; lighter

■ POWER

Engine: 1060 cc, 4-cycle, 4-cylinder, liquid-cooled gas
Ignition: Electronic
Horsepower: 49 hp (37 kW) at 5500 rpm
Torque: 58.6 lb ft at 3500 rpm
Fuel Capacity: 10 gal (38 L)

■ ELECTRICAL SYSTEM

Battery: 12-volt; 28 amp hr
Charging: 45-amp alternator

■ PERFORMANCE

Rated Capacity: 2100 lb (953 kg) includes 200 lb (91 kg) each for operator and passenger
Speed (maximum): 24 mph (38 km/h)

■ SEATS

Adjustable, vinyl clad bucket seats with headrest for driver and passenger; seat belts

■ BRAKES

Service: Dual circuit hydraulic with vacuum booster; rear wheel, drum type; front wheel, disc type
Parking: Hand operated

■ TIRES

155 R 13C radial; optional 205/60 R 13

■ STEERING

Manual rack and pinion

■ SUSPENSION

Front: Independent wishbone with coil springs
Rear: Leaf spring with shock absorber

■ DIMENSIONS

Overall Length: 145.7" (3.7 m)
Overall Width: 59.8" (1.5 m)
Overall Height: 70.7" (1.8 m)
Cargo Area: 93.5" x 55.5" x 10.5" (2.4 m x 1.4 m x 0.3 m)
Inside Clearance Circle: 14' 9" (4.5 m)
Ground Clearance: 6.3" (160 mm)
Weight: 1741 lb (790 kg)
Wheelbase: 78.7" (2 m)
Wheel Tread: **Front:** 50" (1.3 m)
Rear: 50" (1.3 m)



**CUSHMAN
RANSOMES
RYAN**

For The Best Results

Call today...

(612) 333-3487 or

Toll Free 1 (800) 759-5343

for a free on site demonstration.

Authorized Factory Dealer Since 1949

CUSHMAN MOTOR CO., INC. **CUSHMAN
TURF-CARE
EQUIPMENT**

2909 E. FRANKLIN AVE., MINNEAPOLIS, MN 55406 • (612) 333-3487 • TOLL FREE 1-800-759-5343 • FAX: (612) 333-5903

Records Are Meant to Be Broken!!!

Tom Lehman and Minneapolis Golf Club Host '97 Dayton's Challenge

By Dale Wysocki

Each year goals are set and the previous year's records are examined. When planning how to help the Children's Cancer Research Fund and figure a way to assist the people in the Red River Valley, the plan was to lay out a two-day tournament. On Sunday a competition would be held utilizing PGA touring pro's that did not make the cut from the Fed Ex St. Jude's Classic. The Monday golf tournament would include some of Tom Lehman's closest personal friends.

The two-day tournament would require some extra work for Golf Course Superintendent Dale Caldwell's fine staff. Given this year's dry spring, that would pose no problem. Sometimes drier is quicker. The thoughts of having a limited gallery of 7,500 onlookers wandering around might make your stomach revolve. However, your spine might quiver ever so slightly especially if an inch of rain fell, and if the rain gods decided to make up the deficit for this spring over the weekend, you might consider doing a hammerhead dive in a P-51D as a form of stress reduction. The rain gods decided that a nice gentle soaking rain on Sunday would give the area's irrigation pumps a needed respite and that the PGA tour-



MSC's Mike Max interviews MGC's Dale Caldwell, CGCS.

ing pro would have the chance to go right at the stick. A number of firsts and seconds would take place during the golf tournament. Scott Simpson would beat Payne Stewart. Steve Jones would shoot a record 10-under par and defeat the host of the challenge. A record \$675,000 would be raised for the CCRF. In addition \$100,000 would be donated to flood relief. The tournament next year has set its goal of raising over \$1,000,000. Given the dedication of the host and the cooperation of the host club, it is a goal that many children will reap the benefits.



Paskvan Consulting

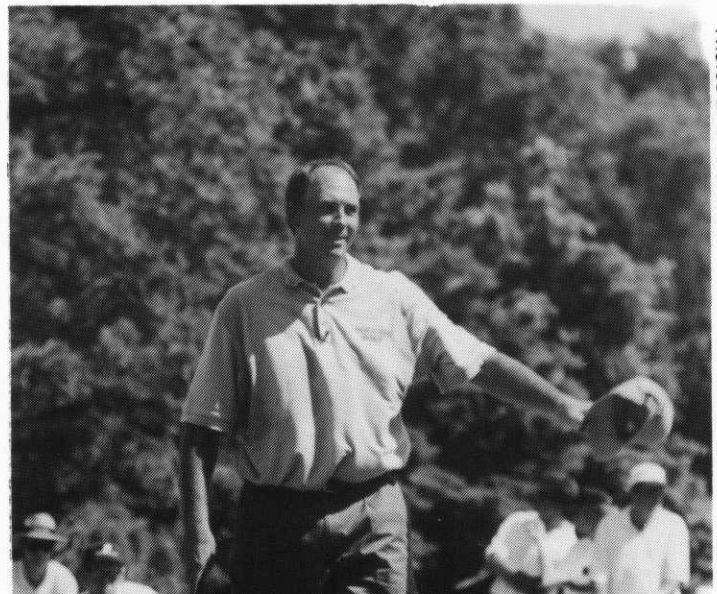
Route 1 Box 77A
Akeley, MN 56433
218-652-3542
Fax 218-652-2949

Where Success is Never an Accident

Specialists in Soil and Plant Nutrition
Tailored to Golf Courses and Sports Turf

Services Provided:

- Complete inventory of the soils on the course or job site.
- Sampling, analyzing, delivery and interpretation of the results to eliminate guesswork.
- Help find corrective fertilizer materials to save money.
- Physical analysis on sand-soil-peat to determine proper mixing for greens and topdressing.
- Fast turn around time, yet quality is never compromised.



Dayton's Challenge host Tom Lehman

PHOTOS BY DALE WYSOCKI

We're Right on Par for What You Need!

Applications for All Areas of the Game.

Soil Solutions!

from *Floratine*

CalpHlex-

The Economical, Highly Soluble Calcium Chelate for Managing:

- Calcium Deficiency
- Magnesium Excess
- pH Balance
- Sodium Build-Up

Maxiplex-

The Concentrated Liquid Humic Acid for Better Management of:

- Compaction
- Nutrient Tie-Up
- Leaching
- Hot Spots

Floratine Products Group
129 S Main, Collierville, TN 38017
(901) 853-2898

FLORATINE PRODUCTS



#1 in BioStimulants

JUST FOR THE
HEALTH OF IT!

*ASTRON PLUS *PER "4" MAX PLUS
*KNIFE PLUS *RENAISSANCE

*and other patented hormone
balanced auxiliary nutrient
compounds promoting
improvements in turfgrass:*

- *Root Development
- *Stress Resistance & Recovery
- *Health & Quality

*Decidedly Different in
Design & Performance*

Aqua-Vive

Biological Water Clarifier



- Eliminates Murky Water
- Eliminates Odors
- Controls Algae Bloom
- Removes Surface Scum

PROUD

to be a member



Platinum Tee Club

THANKS

*to our many turfgrass
management friends*

FLORATINE

*Creative Solutions for
Turfgrass Management*



179 So. Main/Collierville, TN 38017
(901) 853-2898

For More Information Call Dan or Rick at 612-934-1205

Superior Tech Products 80 W 78th St, Suite 135 Chanhassen, MN 55317